

Notice of Allowability	Application No.	Applicant(s)	
	10/803,568	BRUCHLE ET AL.	
	Examiner	Art Unit	
	Bernard E. Souw	2881	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 02/18/2005.
2. ☒ The allowed claim(s) is/are 1,2 and 5-21.
3. ☐ The drawings filed on 18 March 2004 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>09/27/2004</u> 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____. |
|---|---|

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this Examiner's Amendment has been given during a phone conversation with applicant's attorney, Mr. Thomas Ryan, Reg. No. 52,187, on march 10, 2005.

In the claims (amended 02/18/2005):

- ▶ In claim 8, line 2, after "*wherein said*", prior to "*shielding arrangement*", delete **[at]**.
- ▶ In claim 18, lines 4-5, after "*analytical devices*," delete *[wherein said gypsum is used as a neutron retarding material]*, and insert -- ***wherein said shielding arrangement has a thickness that is matched to a radiation spectra of a high-energy particle accelerator*** --.
- ▶ In claim 19, line 4, after "*analytical devices*," delete *[wherein said shielding element has a thickness of at least 2m]*, and insert -- ***wherein said shielding element has a thickness that is matched to a radiation spectra of a high-energy particle accelerator*** --.

Applicant's Amendment

2. The Amendment filed 02/18/2005 has been entered. The present Office Action is made with all the arguments being fully considered.

Claims 3 and 4 have been cancelled.

Claims 1, 2 and 5-21 remain pending in this office action.

ALLOWANCE

3. Claims 1, 2 and 5-21 are allowed.

The claims are subsequently renumbered to claims 1-19.

Reasons for Allowance

4. The following is an examiner's statement of reasons for allowance:

A radiation shielding arrangement for shielding neutron and gamma radiations comprising at least one shielding element including gypsum, the shielding arrangement made to a thickness that is matched to a radiation spectra of a high-energy particle accelerator, as recited in claims 1, 18, 19 and 20, is neither anticipated nor rendered obvious by any prior art.

A radiation shielding arrangement for shielding neutron and gamma radiations comprising at least one shielding element including gypsum, the shielding arrangement made to a thickness greater than or equal to a secondary radiation equilibrium

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thickness, as recited in claim 5, is neither anticipated nor rendered obvious by any prior art.

A radiation shielding arrangement for shielding neutron and gamma radiations comprising at least one shielding element including gypsum, the shielding arrangement having a multilayer construction comprising a spallation layer and a neutron-retarding layer, as recited in claim 6, is neither anticipated nor rendered obvious by any prior art.

A radiation shielding arrangement for shielding neutron and gamma radiations comprising at least one shielding element including gypsum, the shielding arrangement having at least one shielding element made of a first material including bound water and a neutron absorbing layer having boron-paraffin, as recited in claim 13, is neither anticipated nor rendered obvious by any prior art.

Claims 2, 7-12, 14-17 and 21 are also allowed because of their dependencies, either directly or indirectly, upon claims 1, 5, 6, 13, 18, 19 or 20.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Relevant Prior Art

6. This prior art made of record and not relied upon is considered pertinent to applicant's disclosure: (a) USPGPUB 2004/0254419 and 2005/0025797, both issued

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to Wang et al., are found to claim the same subject matter of the invention as recited in claim 6, i.e., a first layer made of metal (which is known in the art as being a spallation layer) and a second layer made of gypsum (known as being a neutron retarding layer). However, the earliest priority date of the two cited references (4/8/2003) is predated by the priority date claimed by the present invention (03/19/2003). Therefore, none of the Wang's references would qualify for rejecting the present claims under 35 USC § 102 and/or § 103. (b) Abstracted Patent Publication RU 2083007C, issued to Dobrov et al. on 06/27/1997 and having a priority date of 11/27/1995, is found to disclose a similar subject matter of the invention as recited in claim 19, i.e., reciting a shielding element containing gypsum having a thickness of 150 mm. However, the Dobrov's reference does not recite the limitation that the shielding element is made to a thickness that is matched to a radiation spectra of a high-energy particle accelerator.

Communications

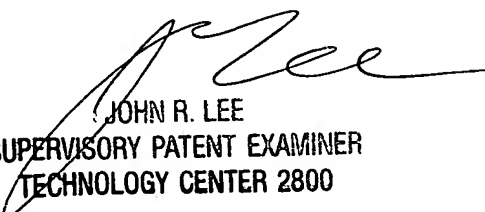
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernard E Souw whose telephone number is 571 272 2482. The examiner can normally be reached on Monday thru Friday, 9:00 am to 5:00 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R Lee can be reached on 571 272 2477. The central fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 for regular communications as well as for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0956.

bes
March 11, 2005



JOHN R. LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800